

We claim:

1.

1           A method of operating a comminution system having a dry colorant  
2 application system, the comminution system being capable of grinding wood material  
3 through the use of a hammer mill which is rotatable about an axis and maintained in a  
4 housing adjacent one opening in a chamber, said chamber having another opening for  
5 introducing the wood material prior to its being ground, the comminution system  
6 having a conveyor mechanism for transporting the ground wood material to a desired  
7 location, wherein the method of operation comprises:  
8           providing a hopper for maintaining dry colorant and having an opening  
9 for dispensing the dry colorant from the container and onto a primary ground wood  
10 material of an initial size;  
11           maintaining the hopper adjacent the conveyor mechanism;  
12           filling the hopper with dry colorant and disbursing the dry colorant  
13 from the hopper onto the primary ground wood material transferring along the  
14 conveyor mechanism;  
15           reintroducing the primary ground wood material to said chamber and  
16 arranging a water spigot adjacent said one opening of said chamber for operable  
17 connection with a source of fluid and dispensing the fluid into said chamber and  
18 wetting the primary ground wood material with dry colorant thereon; and  
19           rotating said hammer mill and further grinding the wetted ground  
20 wood material with the hammer mill providing a finish ground material of a lesser  
21 size than the primary ground material whereupon the wetted colorant is impregnated

22 within the finish ground material to alter the visual appearance of the primary ground  
23 wood material to take on the desired decorative color of the finish ground material.

**2.**

1 The method of claim 1 further comprising providing a colorant  
2 metering device and communicating the colorant metering device with the container  
3 and metering the rate of dispensing dry colorant onto the primary ground wood  
4 material.

**3.**

1 The method of claim 1 further comprising providing a water metering  
2 device and communicating the water metering device with the spigot to meter the rate  
3 of water dispensed into the chamber.

**4.**

1 The method of claim 1 further comprising providing a control system  
2 operably communicating with said chamber and said spigot allowing an operator to  
3 control the dispensing rate of the water and the dry colorant onto the primary ground  
4 material.

**5.**

1 The method of claim 2 further comprising providing a central  
2 processing unit and operably connecting said central processing unit to said colorant

3 metering device to regulate the rate at which dry colorant is dispensed onto the  
4 primary ground wood material.

**6.**

1 The method of claim 5 including communicating said central  
2 processing unit with said chamber to facilitate regulating the rate at which dry  
3 colorant is dispensed.

**7.**

1 The method of claim 2 further comprising providing a central  
2 processing unit and operably communicating said central processing unit with said  
3 water metering device to regulate the rate at which water is dispensed into the  
4 chamber.

**8.**

1 The method of claim 7 including communicating said central  
2 processing unit with said chamber to facilitate regulating the rate at which water is  
3 dispensed.

**9.**

1 A method for grinding and coloring ground wood material utilizing  
2 comminution apparatus having at least one wood accommodating chamber with chip  
3 grinder elements, comprising:

4 grinding wood material to provide primary ground wood material of an  
5 initial size;  
6 conveying said primary ground wood material along a path;  
7 dispensing dry colorant substantially uniformly onto said primary  
8 ground wood material as it is being conveyed;  
9 transferring said primary ground wood material with said dry colorant  
10 coated thereon into said chamber of the comminution apparatus;  
11 wetting the coated primary ground wood material in said chamber; and  
12 at the same time, further grinding the wetted and coated primary  
13 ground wood material to produce a decoratively colored finish ground wood material  
14 of lesser finished size than the initial primary ground wood material.

**10.**

1 The method of claim 9 further comprising the step of utilizing water in  
2 said wetting step and metering the rate of dispensation of water onto the primary  
3 ground wood material.

**11.**

1 The method of claim 9 further comprising the step of metering the rate  
2 of dispensation of dry colorant onto the primary ground wood material.

**12.**

1                   The method of claim 9 further comprising the step of controlling the  
2   rate at which said primary ground wood material is ground.

**13.**

1                   The method of claim 12 further comprising the step of metering the  
2   dispensation of water onto said primary ground wood material in proportion to the  
3   rate at which the primary wood material is being ground.

**14.**

1                   A method of constructing a multiple step wood grinding and chip  
2   colorant system comprising:  
3                   a.     providing a grinder system having primary chipping and  
4   secondary chip size reducing capability and incorporating housing structure for  
5   rotatable chipper elements including an exit conveyor mechanism;  
6                   b.     providing a hopper for dry colorant located to dispense dry  
7   colorant to wood chips exiting said grinder system on said exit conveyor mechanism  
8   to coat primary ground wood chips with dry colorant;  
9                   c.     providing a conveying mechanism introducing the coated wood  
10   chips to said grinder system; and  
11                   d.     providing a liquid dispensing mechanism for dispensing a  
12   liquid in a controlled stream to said housing structure onto said coated wood chips  
13   while said chipper elements reduce said coated wood chips in size in a size reducing

14 operation and thoroughly impregnate them with wetted dry colorant during said  
15 reducing operation.

**15.**

1 The method of claim 14 wherein said grinding system has a first,  
2 coarse grinder and a second, reducing grinder, said first grinder being separate from  
3 said second grinder and said second grinder incorporating said liquid dispensing  
4 mechanism.

**16.**

1 The method of claim 14 wherein said grinding system comprises a  
2 single grinder to which said coated chips are returned, said grinder incorporating said  
3 liquid dispensing mechanism.

**17.**

1 The method of claim 14 further providing a central processing unit in  
2 operable communication with said hopper to regulate the rate at which dry colorant is  
3 dispensed on said wood chips exiting said grinder system.

**18.**

1 The method of claim 14 further providing a central processing unit in  
2 operable communication with said housing structure to regulate the rate of  
3 dispensation of said liquid from said liquid dispensing mechanism.